

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1       Claim 1 (currently amended): A method for identifying a  
2 momentary acoustic scene, said method including  
3       - an extraction, during an extraction phase, of  
4            characteristics from an acoustic signal captured by  
5            at least one microphone (2a, 2b), wherein at least  
6            auditory characteristics are extracted and  
7       - an identification, during an identification phase, of  
8            the momentary acoustic scene on the basis of the  
9            extracted characteristics by mapping the extracted  
10            characteristics to specific individual sound sources  
11            of a plurality of different sound sources and  
12       - selecting and executing a process for analyzing and  
13            modifying an acoustic signal, said process taken  
14            from a plurality of available processes based on the  
15            identified momentary acoustic scene.

1       Claim 2 (previously presented): Method as in claim 1,  
2 wherein, for the identification of the characteristic features  
3 during the extraction phase, Auditory Scene Analysis (ASA)  
4 techniques are employed.

1       Claim 3 (previously presented): Method as in claim 1,  
2 wherein, during the identification phase, Hidden Markov Model  
3 (HMM) techniques are employed for the identification of the  
4 momentary acoustic scene.

1       Claim 4 (previously presented): Method as in claim 1,  
2 wherein at least one of the following auditory characteristics  
3 are identified during the extraction of said characteristic  
4 features: loudness, spectral pattern, harmonic structure,

5 common build-up and decay processes, coherent amplitude  
6 modulations, coherent frequency modulations, coherent  
7 frequency transitions and binaural effects.

1 Claim 5 (previously presented) : Method as in claim 1,  
2 wherein at least one non-auditory characteristic is identified  
3 in addition to the auditory characteristics.

1 Claim 6 (previously presented) : Method as claim 1,  
2 wherein the auditory characteristics are grouped along Gestalt  
3 theory principles.

1 Claim 7 (previously presented) : Method as in claim 6,  
2 wherein the extraction of characteristics and/or the grouping  
3 of the characteristics are performed either in context-free or  
4 in context-sensitive fashion, and further including the step  
5 of taking into account information relative to a signal  
6 content to thereby provide an adaptation to the acoustic  
7 scene.

1 Claim 8 (previously presented) : Method as in claim 1,  
2 wherein, during the identification phase, data are accessed  
3 which were acquired in an off-line training phase.

1 Claims 9-18 (canceled).

1 Claim 19 (currently amended) : A method for identifying  
2 and selecting an appropriate process for analyzing an acoustic  
3 signal, said method including

4 - an extraction, during an extraction phase, of  
5 characteristics from said acoustic signal, wherein  
6 at least auditory characteristics are extracted ;  
7 - an identification, during an identification phase, of a  
8 momentary acoustic scene on the basis of the

1       Claim 20 (previously presented): The process of claim 19,  
2 wherein said extraction includes the step of analyzing the  
3 acoustic structure of the acoustic signal for identifying  
4 tonal signals in acoustical signals generated by speech and  
5 tonal signals generated by music.

1       Claim 21 (previously presented): The process of claim 19,  
2 wherein said extraction applies the principles of gestalt  
3 analysis for acoustical signals generated by speech and tonal  
4 signals generated by music.

1       Claim 22 (previously presented): The process of claim 21,  
2 wherein said gestalt analysis includes examining a qualitative  
3 property chosen from the group consisting of continuity,  
4 proximity, similarity, common density, unit, and good  
5 constancy.

1       Claim 23 (previously presented): The process of claim 19,  
2 wherein said executing said selected suitable process includes  
3 the step of processing said acoustic signal to generate a  
4 hearing signal for improving the hearing ability of a user.

1 Claim 24 (previously presented): The process of claim 19

2 further including the step of generating an audio signal from  
3 said processed acoustic signal for transmission to a user.

1       Claim 25 (currently amended): A method for identifying  
2 and selecting an appropriate process for analyzing an acoustic  
3 signal, said method including

- 4       - an extraction, during an extraction phase, of  
5            characteristics from said acoustic signal including  
6            the step of analyzing the acoustic structure of the  
7            acoustic signal for identifying tonal signals in  
8            acoustical signals generated by speech and tonal  
9            signals generated by music, wherein at least  
10           auditory characteristics are extracted ; and
- 11       - an identification, during an identification phase, of a  
12           momentary acoustic scene on the basis of the  
13           extracted characteristics by mapping the extracted  
14           characteristics to each of a plurality of specific  
15           individual sound sources, and further wherein said  
16           identification includes the use of hidden markov  
17           models; and
- 18       - selecting a process for analyzing the acoustic signal  
19           based on the identified momentary acoustic scene,  
20           wherein said suitable process is chosen from a  
21           plurality of available processes, said process for  
22           improving the hearing ability of a user;
- 23       - executing said selected process, said executing  
24           including the step of processing said acoustic  
25           signal to generate a processed audio signal; and
- 26       - generating an audio signal from said processed acoustic  
27           signal for transmission to said user.

1       Claim 26 (previously presented): A method for identifying  
2 and selecting an appropriate process for analyzing an acoustic  
3 signal, said method including:

4       - an extraction of at least auditory-based characteristic  
5        features from an acoustic signal, wherein said  
6        auditory characteristics include one or more of:  
7        volume, spectral pattern, harmonic structure, common  
8        build-up and decay times, coherent amplitude  
9        modulations, coherent frequency modulations,  
10       coherent frequency transitions, and binaural  
11       effects; and  
12       - an identification of the momentary acoustic scene on  
13        the basis of the characteristics not limited to  
14        speech characteristics; and  
15       - automatically selecting a hearing process for execution  
16        by a hearing device from a plurality of available  
17        processes based on the identified momentary acoustic  
18        scene.

1       Claim 27 (previously presented): The method of claim 26,  
2       wherein said identification includes at least a determination  
3       of whether the momentary acoustic scene includes speech,  
4       music, or some other auditory activity.

1       Claim 28 (previously presented): The method of claim 26,  
2       further comprising a step of grouping the characteristic  
3       features according to: continuity, proximity, similarity,  
4       common density, unit, and good constancy; wherein said  
5       grouping supports the identification of the momentary acoustic  
6       scene.

1       Claim 29 (previously presented): A method for identifying  
2       a momentary acoustic scene for a hearing device, said method  
3       including  
4       - an extraction, during an extraction phase, of  
5        characteristics from an acoustic signal captured by

6                   at least one microphone, wherein at least auditory  
7                   characteristics are extracted and  
8                   - an identification, during an identification phase, of  
9                   the momentary acoustic scene on the basis of the  
10                   extracted characteristics; and  
11                   - selecting and executing an audio signal analyzing  
12                   process ~~for execution in a hearing device~~, from a  
13                   plurality of available audio signal analyzing  
14                   processes based on the identified momentary acoustic  
15                   scene, said audio signal analyzing process for  
16                   execution in a hearing device for improving the  
17                   hearing of a user.

1                   Claim 30 (previously presented): The method of claim 29,  
2                   further comprising a step of grouping the characteristic  
3                   features according to: continuity, proximity, similarity,  
4                   common density, unit, and good constancy; wherein said  
5                   grouping supports the identification of the momentary acoustic  
6                   scene.

1                   Claim 31 (previously presented): The process of claim 29,  
2                   wherein said execution generates a processed acoustic signal,  
3                   said process further including the step of said hearing device  
4                   generating an audio signal from said processed acoustic signal  
5                   for transmission to a user to aid the hearing of the user.